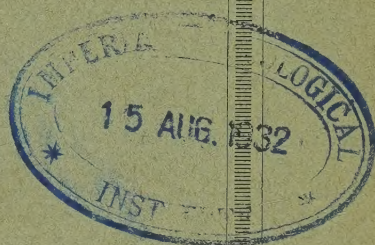


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HONG KONG
REPORT
OF THE
BOTANICAL AND FORESTRY
DEPARTMENT

FOR THE YEAR

1931



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HONG KONG

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REPORT ON THE BOTANICAL AND FORESTRY DEPARTMENT FOR THE YEAR 1931.

GENERAL.

The weather during the first part of the year was most unfavourable for flowers in pots and flower gardening generally; for forestry work the weather throughout the whole year was favourable.

2. The Flower Show, usually held by the Horticultural Society during the month of March, was abandoned.

3. Typhoon signals were hoisted on seven occasions, during the year; the gale of August 1st did considerable damage to roadside trees and the smaller trees and shrubs in the Botanical Gardens.

GARDENS, PARKS AND GROUNDS.

4. *Botanic Gardens*.—The whole of the areas known as the Fountain and Lower Terraces, were taken over by the Public Works Department for the site of a service reservoir, the formation of which was in progress at the end of the year. The loss of these two areas, which were covered with turf and flower beds, has detracted much from the general appearance of the Old Garden. The majority of the small trees and shrubs were lifted and replanted in various parts of the Colony, the following trees, which were too large for removal, had to be sacrificed, *Ficus retusa*, *Dracontomelum mangiferum* *Heteropanax fragrans*, *Aleurites montana* and *Putranjiva Roxburghii*. The gate in Albert Road, generally known as the North West Entrance, will, in consequence of relevelling of the terrace, be of no further service and will most probably be replaced by a new entrance in Albany Road. When the service reservoir is completed, the roof will be covered with soil to form one larger flat area in place of the two terraces on different levels.

5. The area to the extreme south of the Old Garden adjoining the junction of Garden and Bowen Roads, which had not previously been developed, was cleared of wild trees and undergrowth; the whole of the slope was then trimmed and a portion turfed, in addition to greatly improving the appearance of the area, a clear view of both angles of Garden Road can now be obtained by drivers of motor vehicles when approaching a dangerous turn.

6. The Aviary, with one exception, was stocked with birds which are natives of, or are found in South China, during the summer months.

7. The total number of trees, shrubs and pot plants, sold during the year was 2,313.

8. *Government House Grounds*.—A number of large Conifers on the north side of the grounds and one large specimen of Banian (*Ficus retusa*) on the front lawn were removed, flower beds were formed on the areas previously occupied by the trees.

9. The concrete tennis courts were made available for use as a plant compound, the majority of the plants for use in pots and beds in all parts of the ground are now raised in this compound. One foreman gardener was appointed to take sole charge of propagation of plants for pots and flower beds.

10. *Mountain Lodge Grounds*.—A number of *Cupressus macrocarpa* and *Casuarina equisetifolia*, in the valley were destroyed by the gale of August 1st. *Pinus Massoniana*, sown *in situ* on the banks above the main approach path, continued to make fair progress.

11. *Colonial Cemetery*. *Phoenix Roebelinii* planted to form an avenue from the main entrance to the upper terraces, have grown rapidly and much improved the general appearance of the cemetery. Numbers of large trees were removed from the older plots, in order to lessen the possibility of damage to graves and headstones. All turfed areas were regularly machined and rolled, extensive areas of undergrowth were cleared, during the summer months.

12. *Kowloon Hospital Grounds*.—*Casuarina equisetifolia* and *Pinus Massoniana* planted as one year old trees and raised from seed sown broadcast have at last taken a firm hold of the large grass bank on the south side; the trees should, in a few more years, form a badly needed shelter from the prevailing wind, which so far has made the cultivation of flowering trees and shrubs impossible. Cockchafer grubs damaged only a small portion of the turf during the year.

13. *Lysholt (Colonial Secretary's Residence)* The grounds were placed under the care of this Department. The old cement tennis court was broken up and removed, the plot formerly occupied by it, and the adjoining vegetable garden was reconditioned; the whole was then turfed and made available for tennis courts and bowling greens. Damaged trees were removed, flowering shrubs planted in various parts of the grounds and outlying banks were cleared of undergrowth and kept in good order generally.

14. *Cenotaph Plots*.—All four plots were found to be infested with cockchafer grubs which resulted in the total destruction of the turf; before returfing was commenced the ground was closely searched and eighty pounds of grubs were collected and destroyed.

15. *Blake Garden*. The garden was made available for play-grounds for various schools and clubs; the major portion of the lower area was levelled and surfaced with concrete by the Public Works Department. A number of large trees were removed in order to permit of the full use of the area dealt with.

16. *West End Park; King's Park; Civil Hospital; Mental Hospital; Senior Officers' Quarters, Leighton Hill; Indian School; Statue Square Plots; Victoria Hospital; Homestead Quarters; Government Pavilions and Villas; Royal Observatory; Kowloon Magistracy; Government Offices; Parade Ground, Volunteer Headquarters and The Eyrie*. The areas of ground, under the control of this Department, at the places mentioned were kept in good order generally; where possible, additional planting of trees and shrubs was carried on, grass lawns and banks, trees, shrubs and flower beds were given such attention as they required.

HERBARIUM AND LIBRARY.

17. Plant specimens of botanical interest and economic value and vegetable drugs were identified for local collectors and institutions outside the Colony; small numbers of botanical specimens were supplied to various institutions for use in research work. Eight new books and 610 bulletins and other publications were added to the Library.

FORESTRY.

18. *Formation of Pine Tree Plantations*. The extension of old and formation of new plantations, by means of sowings *in situ* and broadcasting of seeds of *Pinus Massoniana* was carried on both on the Island and in the New Territories; owing to the need for economy the areas were not so extensive as those dealt with in previous years, sowings *in situ* totalled only 94,753 as against 277,193 in 1930. Areas dealt with were Mount Collinson, hills above Stanley Mound Catchwater, Shek Li Pui reservoir and catchment, hills above Kowloon Tong, Tai-po Kau Forestry Reserve and Fan Ling.

19. On suitable grassy and shrubby areas, 2,678 pounds of seeds of *Pinus Massoniana* were sown by the broadcast method.

20. *Pine Seed Collection*. The Fan Ling plantations produced an exceptionally heavy crop of cones, from which 680 pounds of seed were extracted.

21. *Broad-leaved trees planted.* The following trees were used in the formation of plantations of varying sizes and the extension and maintenance of the roadside planting scheme, *Acacia confusa*, *Acacia pennata*, *Aleurites triloba*, *Aleurites montana*, *Aleurites Fordii*, *Celtis sinensis*, *Tristania conferta*, *Sterculia lanceolata*, *Pithecolobium saman*, *Bischofia javanica*, *Parkia timoriana*, *Cunninghamia sinensis*, *Melia Azedarach*, *Liriodendron tulipiferum*, *Poinciana regia*, *Bauhinia variegata*, *Bauhinia Blakeana*, *Garcinia oblongifolia*, *Melaleuca Leucadendron*, *Artocarpus hypargyrea*, *Liquidambar chinensis*, *Cupressus macrocarpa*, *Taxodium distichum* and *Crataeva religiosa*.

22. *Cheung Chau.* Suitable areas were planted with *Casuarina equisetifolia* and *Pinus Massoniana*, the latter were one year old seedlings raised in the tree nursery recently established on the island.

23. *Aleurites montana* in Fan Ling district produced a heavy crop of seeds; *Aleurites Fordii* at Taipo Kau Forestry Reserve produced a fair crop; almost every seed was stripped from the trees by the gale of August 1st, as the seeds were unripe, it was not possible to collect them for future use.

24. The same gale (August 1st) stripped the majority of seeds from trees and shrubs, in all but the most sheltered spots, consequently the quantities of seeds collected were much less than those of the last few years.

25. *Camphor Plantations.* At Little Hong Kong the plantation was cleared of all wild trees and shrubs, which were obstructing the Camphors, which have been planted during the past ten years, the plantation on the north side of the valley is doing very well. At Tai Wo Po the whole area available has been planted and a large number of the existing Pines were removed to make room for the Camphors, which are making rapid growth.

26. *Fan Ling.* The establishment of a Camphor plantation, among the existing Pines, was commenced.

27. *Insect Pests.* Pine Tree Caterpillars (*Dendrobium punctatus*) most fortunately appeared only in very small numbers, no damage was done to plantations by them.

28. *Trees Felled.* In addition to the usual clearings of Pines and indigenous trees necessitated by work in connection with reservoir and catchment areas, formation of roads and building sites, a number of large roadside trees were removed from various parts of the Colony on account of the increased motor traffic.

29. In Lyttelton Road the whole of a very old rockery and the trees growing in it were removed in order to do away with a dangerous passing place.

30. *Protection of Plantations.* Fire barriers and forestry paths in all parts of the Colony were cleared and repaired; in Mount Collinson Prohibited Area an extension of the forestry service path, 3,417 feet in length was made; two new fire barriers were made in the vicinity of old graves, in the same area.

31. The total length of fire barriers cleared amounted to 40.52 miles of which 34.07 miles were 10 feet and the remainder 20 feet in width. On Mount Davis, where fires frequently occur, 1.14 miles of barrier were widened from 10 feet to 20 feet. One new barrier was made in a plantation, in the vicinity of a group of huts at Chung Hom Bay.

32. The total length of forestry paths cleared amounted to 41.71 miles.

33. *Forest and Hill Fires.* During the year 65 fires occurred as against 24 in 1930; serious damage was done to plantations at Stanley, where 800 Pines were destroyed and over 1,000 badly damaged, by a single fire.

34. No fires occurred on the day of the Ching Ming Festival, and four only on the day of the Chung Yeung Festival, some days prior to each of the festivals mentioned, propaganda against damage by fire was carried out by means of distribution of handbills and posting of notices in cementeries.

35. Less than the usual number of hill fires occurred in the New Territories, fires of this nature, particularly those on the slopes of Tai Mo Shan and Lan Tao, destroy very large number of the local flora and fauna.

36. The majority of both classes of fires appeared to have been caused by carelessness of grave worshippers and the dropping of lighted matches or tobacco.

37. *Taipo Kau Forestry Reserve.* The abnormal rainfall of April 20th caused a considerable amount of damage, portions of the tree nursery and all wooden bridges were washed away; several landslides occurred in the vicinity of the access path.

38. Permanent quarters for the staff were built by the Public Works Department, they are a great improvement on the old matshed type of quarters which were demolished or badly damaged by gales, every year.

39. *Undergrowth Clearing.* In Hong Kong, Kowloon and the New Territories the total area cleared in connection with anti-malarial measures was 4,082,910 square feet; other areas cleared for the purpose of surveys, formation of roads, building

sites, work in connection with reservoirs and general public improvements totalled 4,937,300 square feet. In accordance with advice received from the Director of Medical and Sanitary Services, heavy undergrowth, covering stream courses was not removed.

40. *Mount Collinson Prohibited Area.* In addition to extensive formation of plantations, the transfer of rare plants from other parts of the Colony to this reserve has been commenced, by this means it is hoped that many of the native flowering plants, particularly several species of terrestrial Orchids, which are at present in danger of being exterminated, may be preserved and increased.

41. *Forest Guards Services.* The total number of persons arrested and charged with forestry offences by Forest Guards was 106 as against 234 in the previous year. Particulars of these cases are given in Tables I and II. The Police arrested and charged 112 persons with forestry offences, of this number 104 were convicted, two had bail estreated and six were discharged. Twelve persons who were convicted of two or more forestry offences, were banished.

42. One week before Chinese New Year, 3,000 handbills, warning persons against the cutting of New Year Flower, were distributed in all parts of the Colony. No serious damage was reported in any area in which this beautiful flowering shrub grows.

43. A Camphor distilling apparatus in working order was found at O Tau, as no owner could be found the apparatus and matshed in which it was erected, were destroyed.

AGRICULTURE, ETC.

44. *Fan Ling Experimental Garden.* Sixty additional young trees, representing eleven different species or garden varieties, were added to the Citrus plot, in the extension. Plots of young plants of the following were formed in the extension, *Myrica rubra*, Avocado Pear (*Persea gratissima*) and *Prunus* sp. A plot of foreign vegetables, which can be raised and harvested during the winter season, was cultivated for demonstration purposes

45. *Inspection of Nursery Stock and Vegetable Products.* Twenty-one consignments of *Narcissus Tazetta* containing 300,960 bulbs and five consignments of *Lilium* spp. were inspected and passed for export to Britain and the United States of America. Ninety-four consignments of fresh and dried vegetable products for the Philippine Islands, sixty-eight lots of Sugar Cane, totalling 1,113,030 pieces for the Straits Settlements and eleven lots of plants consigned to various countries were examined and the necessary certificates issued.

SEED COLLECTION.

46. Seeds of the following were collected for local use and for the purpose of exchange:—*Cassia fistula*, *Cinnamomum Camphora*, *Acacia pennata*, *Acacia confusa*, *Albizzia Lebbek*, *Artocarpus hypargyrea*, *Atalantia Hindsii*, *Aleurites triloba*, *Aleurites Fordii*, *Aleurites montana*, *Bauhinia variegata*, *Celtis sinensis*, *Cunninghamia sinensis*, *Casuarina equisetifolia*, *Melia Azedarach*, *Callistemon rigidus*, *Callistemon lanceolata*, *Iris speculatrix*, *Garcinia oblongifolia*, *Glyptostrobilus heterophyllus*, *Leucaena glauca*, *Liquidambar formosana*, *Poinciana regia*, *Pinus Massoniana*, *Sterculia lanceolata*, *Sapium sebiferum*, *Sapium discolor*, *Tristania conferta*, *Tulcheria spectabilis*, *Melaleuca Leucadendron*, *Paulownia Fortunei*, *Strychnos angustifolia* and *Bischofia javanica*.

EXCHANGE OF SEEDS, ETC.

47. The Department is indebted to the following donors of seeds, plants, etc.:—The Director, Royal Botanic Gardens, Kew; Assistant Conservator of Forests, Sandakan, British North Borneo; The Curator, Royal Botanic Garden, Edinburgh; The Director, Botanic Gardens, Glasgow; The Director of Forestry, Manila, P. I.; The Director of Agriculture, Straits Settlements and Federated Malay States; The Officer in Charge, Division of Horticulture, Department of Agriculture, Aburi, Gold Coast Colony; The Canadian Government Trade Commissioner; The Director, Department of Botany and Forestry, Experiment Station, H.S.P.A., Honolulu, Hawaii; Hon. Mr. J. J. Paterson; Mrs. R. M. Dyer; and Messrs. L. W. Bryan (Territory of Hawaii); J. A. Plummer; S. Seth; J. F. Grose; J. P. Walker and Mrs. A. Hughes.

48. The following were the principal recipients:—The Director, Arnold Arboretum, Harvard University, Jamaica Plain, Mass, U. S. A.; The Director of Forestry, Department of Agriculture and Natural Resources, Bureau of Forestry, Manila, P. I.; The Second Economic Botanist, General Research Station, P. O. Teygaon, Dacca, Bengal, India; Dr. G. A. C. Herklots; Professor Woon-yung Chun and Mrs. R. M. Dyer.

REVENUE AND EXPENDITURE.

49. Statements of Revenue and Expenditure of the Department are given in Tables III, IV and V.

H. GREEN,
Superintendent.

4th May, 1932.

Table I.

FOREST GUARDS' SERVICE: OFFENCE.

Village or District.	Report of:—								
	Pine tree stealing.	Pine tree branch stealing.	Brushwood stealing.	Barking trees.	Wild flower stealing.	Fern stealing.	Trespassing upon plantation.	Assault on Forest Guards.	Entering Prohibited Area No. 1 without lawful excuse.
Victoria	—	—	2	—	1	—	—	—	—
Wongneichung	—	—	—	—	—	1	—	—	—
Shaukiwan	1	—	2	—	—	—	1	—	—
No. 1 Prohibited Area, Mount Collinson ..	—	—	—	—	—	—	—	—	3
Tytam	—	—	5	—	—	—	3	—	—
Stanley	—	—	—	—	—	—	—	—	—
Aberdeen	1	—	1	—	—	—	6	—	—
Pokfulam	7	—	2	1	—	—	—	—	—
Kowloon	8	—	—	—	—	—	—	—	—
Harbour Belt	12	2	9	—	—	—	20	—	—
Cheungshawan	—	—	—	—	—	—	—	—	—
Kang Hau	—	—	—	—	—	—	—	—	—
New Territories	1	5	3	—	—	—	9	—	—
Total for 1931	30	7	24	1	1	1	39	—	3
Total for 1930	40	7	67	2	14	—	103	1	—

Table II.

POLICE COURT RESULTS.		
	1931	1930
Persons charged	106	234
Persons convicted	104	230
Forfeiture of bail	1	—
Discharged	—	4
Case withdrawn	1	—

Table III.

COMPARATIVE STATEMENT OF EXPENDITURE FOR 1930 & 1931.

Expenditure.	1930.	1931.
	\$	\$
Personal Emoluments*	75,133.61	78,406.83
<i>Other Charges.</i>		
Brushwood Clearing	4,995.60	4,998.20
Conveyance Allowances	2,100.97	2,288.45
Expenses of Collections	151.52	190.40
Field Allowances to Foresters ...	527.54	599.89
Forestry	19,131.61	15,688.97
Forestry Reserve, Taipo Kau ...	3,953.88	3,789.68
Incidental Expenses	349.60	349.99
Library	115.18	360.00
Light	199.74	213.53
Maintenance of Gardens	10,009.01	9,987.14
Protection of Plantations	1,299.06	1,483.55
Transport	998.68	986.87
Uniform & Accoutrements	1,111.03	1,064.01
Upkeep of Car	488.36	781.92
Total Other Charges	45,431.78	42,782.60
<i>Special Expenditure.</i>		
One Motor Car	3,809.67	—
Total Botanical & Forestry Dept.	124,375.06	121,189.43

*Includes officers of Junior Clerical Service attached to department.

Table IV.

COMPARATIVE STATEMENT OF REVENUE, 1930 & 1931.

Revenue.	1930	1931.
	\$	\$
Timber Sales	4,121.39	3,075.95
Plant Sales	1,002.30	968.05
Loan of Plants	169.30	155.98
Forestry Licences*.....	5,641.13	5,721.76
Interest on Current Account	20.38	—
Other Miscellaneous Receipts†...	1,421.96	1,795.93
Total	12,376.46	11,717.67

*Collected by District Officer.

†Including \$1,760 for Inspection of Nursery Stock as against \$1,295 in 1930.

Table V.

COMPARATIVE STATEMENT OF EXPENDITURE AND REVENUE
FOR THE PAST TEN YEARS.

Year.	Personal Emoluments & Other Charges.	Special Expenditure.	Total Expenditure.	Total Revenue.
	\$	\$	\$	\$
1922.....	71,223.47	—	71,223.47	12,464.32
1923.....	74,709.16	2,448.24	77,157.40	15,848.76
1924.....	86,396.80	120.00	86,516.80	13,038.79
1925.....	88,132.99	8,238.64	96,371.63	9,806.95
1926.....	87,757.80	2,230.21	89,988.01	10,798.95
1927.....	95,722.45	—	95,722.45	7,861.76
1928.....	99,178.99	—	99,178.99	8,849.35
1929.....	101,146.23	—	101,146.23	11,885.97
1930.....	120,565.39	3,809.67	124,375.06	12,376.46
1931.....	121,189.43	—	121,189.43	11,717.67

